



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

RECEIVED

OCT 14 1982

E.I.A. - D.L.P.C.
STATE OF ILLINOIS

DATE: September 15, 1982

TO: Land Division File
RAH

FROM: Rick Hersemann, DLPC/FOS-Central Region

SUBJECT: LPC #04180801 - DOUGLAS CO. - TUSCOLA/CABOT CORP. -- DEEP WELL
(NPDES PERMIT #0004375)

An inspection of Cabot Corporation's deep well injection facility was made on September 15, 1982, by Rick Hersemann and Dave Favero, representing this Agency. Mr. Randy Bergeson, Project Engineer, was present at the time of the inspection.

The purpose of the inspection was to observe the yearly maintenance inspection of injection well #1. The maintenance inspection is designed to check the integrity of the fibercast tubing and casing. Brake Well Corporation removed 240 sections of fibercast tubing from well #1. Each section of tubing measured 20 feet. Each section of tubing was pressure tested for leaks by Tipps Company. Sections of tubing were plugged at one end and water was injected into the other end under 500 pounds of pressure. Only one of the 240 sections of tubing was found to have a leak. It was replaced with a new fibercast section.

The Birdwell Company performed the integrity test of the steel and fiberglass casings. The tests were performed with the aid of a caliper log. The 5½ inch steel casing was checked with a caliper that operated on a magnetic principle. The magnetic caliper checked the thickness of the steel casing. Any weak spots in the steel casing would register on the caliper log. The test on the 5½ inch steel casing was performed from a depth of 4580 feet up to 800 feet.

A three armed caliper was used to check the integrity of the 4½ inch fiberglass casing. This caliper checks to see if the fiberglass casing is intact. The test on the 4½ inch fiberglass casing was performed from a depth of 4892 feet up to 4596 feet. There were no defects encountered in the steel or fiberglass casings. After the tests were completed, Brake Well Corporation was to reassemble the fibercast tubing and put the well back in operation. According to Mr. Randy Bergeson, the cost of the maintenance inspection was \$20,000.

During the inspection of the #1 well, waste hydrochloric acid was being injected down the #2 well. Waste hydrochloric acid was flowing into the south storage lagoon. The north storage lagoon contained some ponded water. The north lagoon has not contained any waste since the fall of 1980.

EPA Region 5 Records Ctr.



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Also during the inspection, two large emissions of hydrogen chloride gas into the atmosphere occurred. The cause of the emission was a plugged vent line at Cabot's plant. Silica tetrachloride mixed with water in the scrubber vent system and formed the hydrogen chloride gas. Both emissions moved toward the east and left Cabot's property. All individuals working on the integrity test of well #1 had to wear respirators until the white clouds of hydrogen chloride gas dispersed. The two emissions of hydrogen chloride gas were referred to DAPC office in Champaign.

RAH/cp

Attachment

cc: DLPC/FOS, Central Region
DLPC/CMS, J. Student
DAPC/FOS, Champaign

DOUGLAS Co.

- LPC

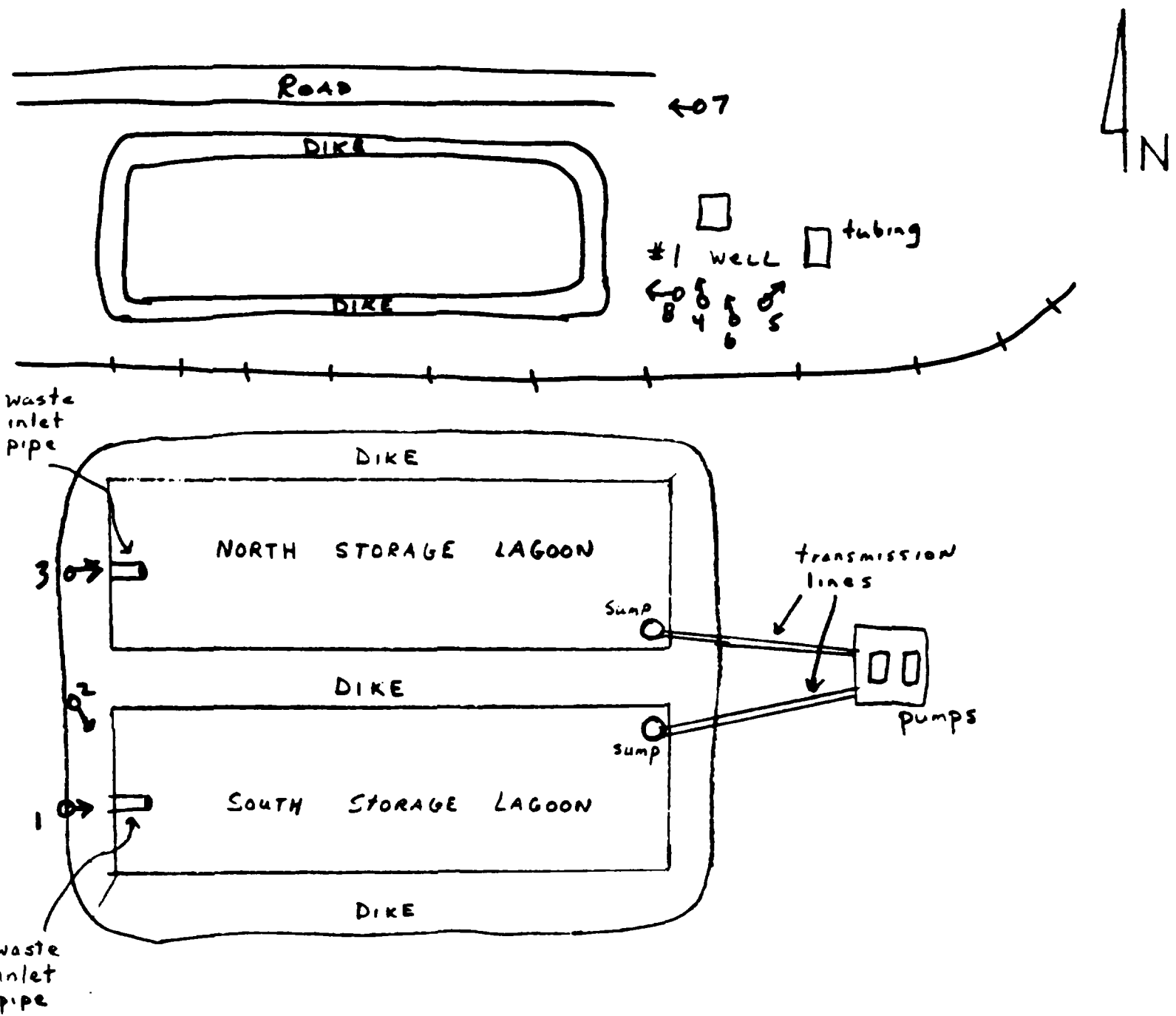
04180801

DATE: 9-15-82

TUSCOLA

/ CABOT CORP. -
DEEP WELL

TIME: 9:45 AM - 4:30 P.M.



NOT TO SCALE

♂ Photos TAKEN

PC 67 11/80

NOT TO SCALE

□
#2 well